

AMENDMENTS

In the Claims

Marked Up Version Of The Pending Claims under 37 C.F.R.

1.121(c)(1)(ii): In accordance with 37 C.F.R. 1.121(c)(1)(ii), the Applicant submits the following marked up version only for claims being changed by the current amendment, wherein the markings are shown by strikethrough (for deleted matter) and/or underlining (for added matter):

1. (currently amended)A communication system, comprising:
 - (a)—a digital data input source providing data bits/samples;
 - (b)—a modulator for modulating the digital data input source;
 - (e)—an encoder for encoding the modulated digital data input source;
 - (d)—a decoder for decoding a received encoded signal;
 - (e)—a demodulator for demodulating the decoded received encoded signal; and
 - (f)—a data transmission link for coupling the encoder and the decoder,[[;]]

wherein the communication system transmits mass quantities of digital data through the data transmission link at high-rates of speed by way of modulating and encoding the data bits/samples,[[;]]

wherein the encoder adapts the data bits/samples~~digital data~~ by separating the data bits/samples~~digital data~~ into forward and conjugate pulse positions over a transmission channel.

2. (currently amended)The system according to claim 1, wherein the forward and conjugate pulse positions are generated by a mono-shot pulse generator.
3. (currently amended)The system according to claim 1, wherein the modulator splits the ~~input digital~~ data bits/samples into a plurality of data bit/sample sets.
4. (currently amended)The system according to claim 1, further comprising:
analog to digital converter for converting an analog signal to the data bits/samples ~~a digital signal~~.
5. (currently amended)The system according to claim 1, wherein the decoder adapts an ~~the~~ received encoded signal between the forward and conjugate pulses in the encoded signal.
6. (currently amended)The system according to claim 1, wherein the decoder uses a thin pulse ~~[[s]]~~ for forward pulse position coding and a relatively thicker pulse for conjugate pulse position coding.
7. (currently amended)The system according to claim 1, wherein the demodulator recombines the forward and conjugate pulse positions into a ~~desired~~ digital output.

8. (currently amended) A method for transmitting mass quantities of digital data through a data transmission link at high-rates of speed in a communication system including:

(a)—splitting ~~[[an]]~~input digital data bits/samples into a plurality of data bit/sample sets;

(b)—encoding forward and conjugate pulse positions over a transmission channel;

(c)—decoding the forward and conjugate pulse positions~~pulsed data~~ to discriminate between the forward and conjugate pulses in a signal; and

(d)—demodulating the data to recombine the forward and conjugate pulses into ~~the desired~~ digital output;

wherein the encoding includes adapting the plurality of data bit/sample sets by separating the plurality of data bit/sample sets into the forward and conjugate pulse positions over the~~[[a]]~~ transmission channel,

wherein a thin pulse is used for forward pulse position coding and a relatively thicker pulse is used for conjugate pulse position coding.

9. (currently amended) The method according to claim 8, wherein the~~[[a]]~~ thin pulse is generated by a forward time position converter~~used for forward pulse position coding~~ and a relatively thicker pulse is generated by a conjugate time position converter~~used for conjugate pulse position coding.~~

10. (currently amended)The method according to claim 8, wherein the forward and conjugate pulse positions are generated by a mono-shot pulse generator.

11. (currently amended)A communication system in a data transmission link, comprising:

a digital data input source providing data bits/samples;

a modulator for modulating the data bits/samples from the digital data input source;

an encoder for encoding the modulated data bits/samples~~digital data input source~~;

a decoder for decoding an ~~received~~ encoded signal;

a demodulator for demodulating the decoded ~~received~~ encoded signal; and

a data transmission channel[[link]] for coupling the encoder and the decoder,[[; and]]

wherein the communication system~~means for~~ transmits[[ing]] mass quantities of digital data through the[[a]] data transmission link at high-rates of speed by way of modulating and encoding the data bits/samples,[[;]]

wherein the encoder separates~~the encoding includes separating~~ the modulated digital data input source into distinct positions over the[[a]] transmission channel.

12. (previously presented)The system according to claim 11, wherein a thin pulse is used for forward pulse position coding and a relatively thicker pulse is used for conjugate pulse position coding.

13. (currently amended)The system according to claim 11, wherein ~~the~~ forward and conjugate pulses are generated by a mono-shot pulse generator.
14. (currently amended)The system according to claim 11, wherein the data splitter[[means]] splits the ~~input digital~~ data bits/samples into a plurality of data bit/sample sets.
15. (currently amended)The system according to claim 11, wherein the encoder[[means]] adapts the data bits/samples[[data]] by separating the data bits/samples[[data]] into forward and conjugate pulse positions over the[[a]] transmission channel.
16. (currently amended)The system according to claim 11, wherein the encoder[[means]] adapts the modulated data bits/samples~~received data~~ between the forward and conjugate pulse positions in the encoded signal.
17. (currently amended)The system according to claim 11, wherein the encoder[[means]] uses a thin pulse[[s]] for forward pulse position coding and a relatively thicker pulse for conjugate pulse position coding.
18. (currently amended)The system according to claim 11, wherein the ~~means recombines the~~ forward and conjugate pulses are recombined into ~~the desired~~ digital output.

19. (currently amended)The system according to claim 11, the system further comprising:

an analog to digital converter for converting an analog input signal into the data bits/samples~~a digital signal~~.

20. (currently amended)The system according to claim 19, the system further comprising:

a data splitter for splitting the digital input signal into a plurality of data bit/sample sets._{[[;]]}